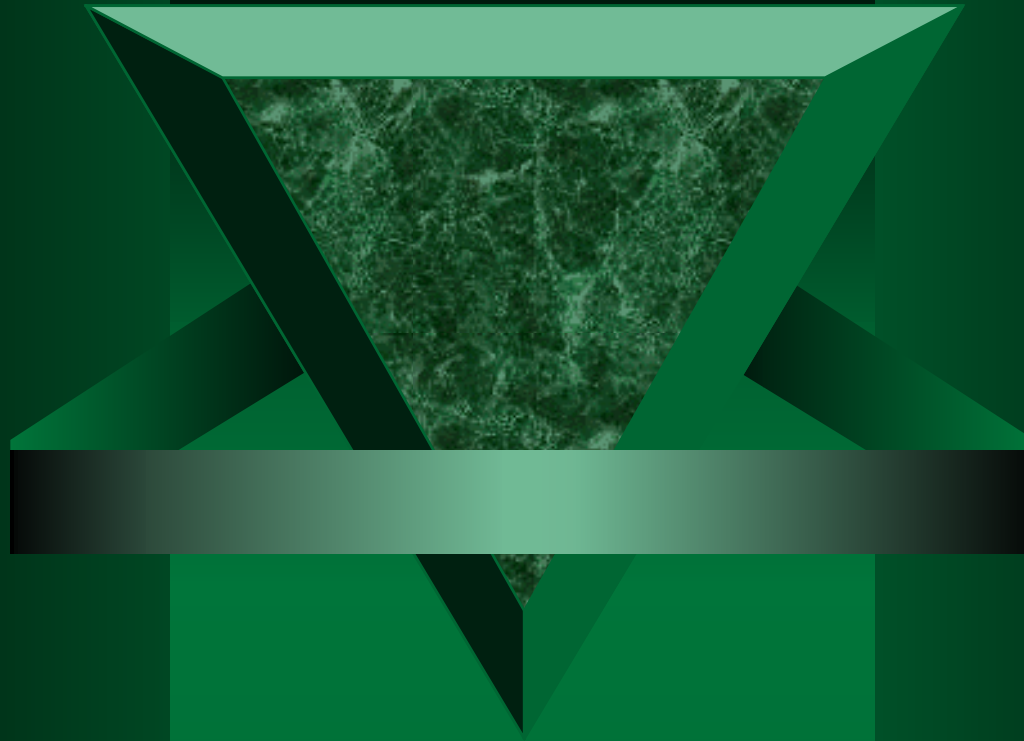


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# LANL DVRS Project

Project Overview



# Project Mission

- ▼ Adapt and integrate existing and emerging technologies to resolve the legacy of oversize TRU waste that is currently “un-disposable”.
- ▼ Provide baseline technology solutions for managing future waste without the need for extended interim storage.

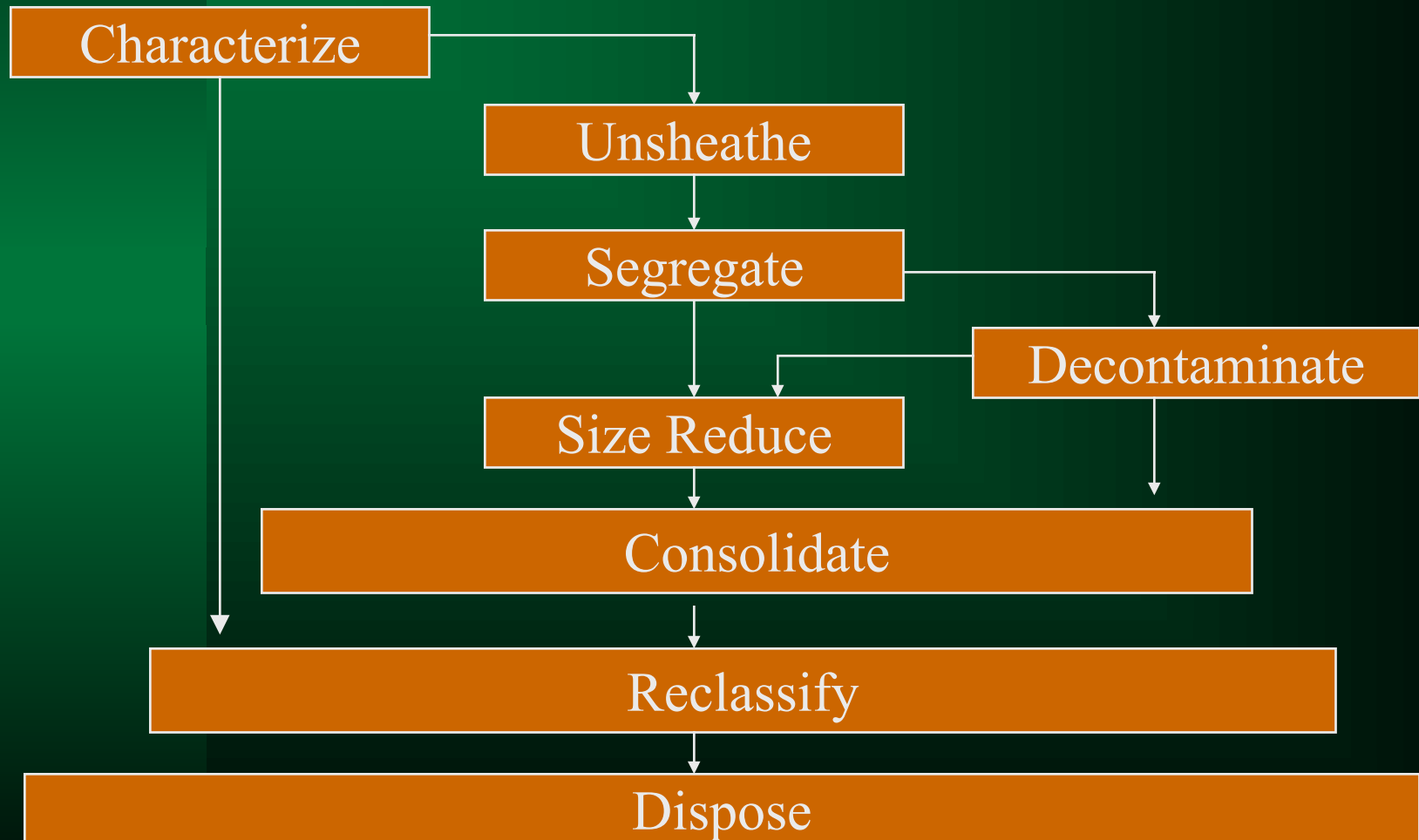


# The Problem





# The DVRS Process





# Integration of Existing Technology

- ▼ Characterization
- ▼ Decontamination
- ▼ Worker Comfort
- ▼ Safety Systems





# Characterization

- ▼ Physical/Hazardous Assessment
- ▼ Radiological Assay
- ▼ Internal X-Ray Assessment



# Physical/Hazardous Assessments

- ▼ Headspace Gas Sampling
  - VOC's, SVOC's, RCRA Metals
- ▼ Smears and Air Samples
- ▼ Visual Examination





# Radiological Assay



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# Radiological Assay





# Internal X-Ray Assessment



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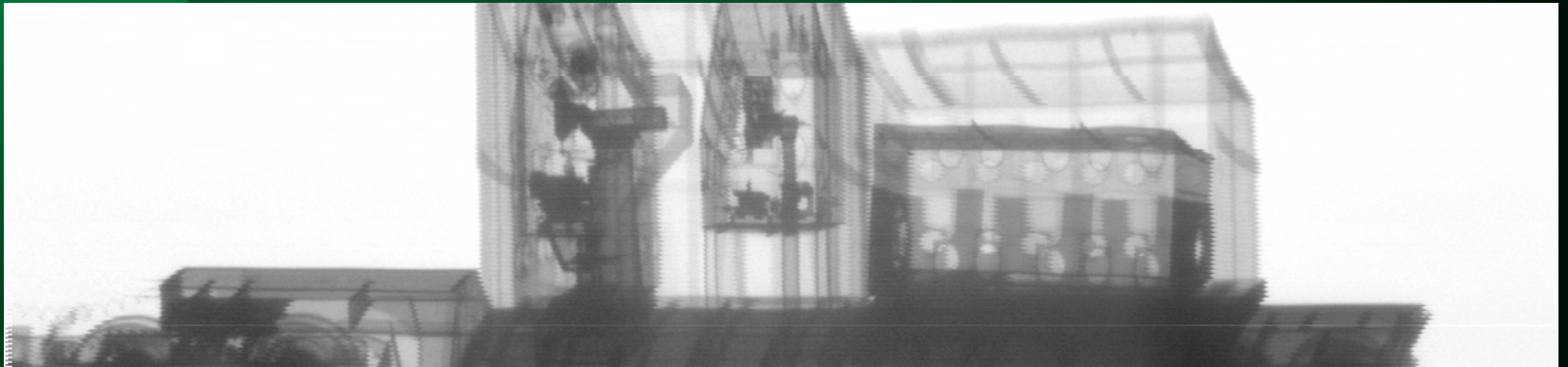
# X Ray Images







# X-Ray Images





# Characterization will:

- ▼ Confirm Existing Records/Knowledge
- ▼ Identify “Phase 1 Boxes”
- ▼ Identify “Problem Packages” to be deferred
- ▼ Provide “As-Builts” for DVRS Operators
- ▼ Allow reclass of some TRU to LLRW



# Confinement System

- Opening Boxes under controlled Conditions







# Confinement Approach

- ▼ 2500 ft<sup>2</sup> working area
- ▼ 5 contained work zones
- ▼ Active HEPA Ventilation
- ▼ Negative air pressure
- ▼ Active Fire Suppression
- ▼ Integrated Radiation Monitoring

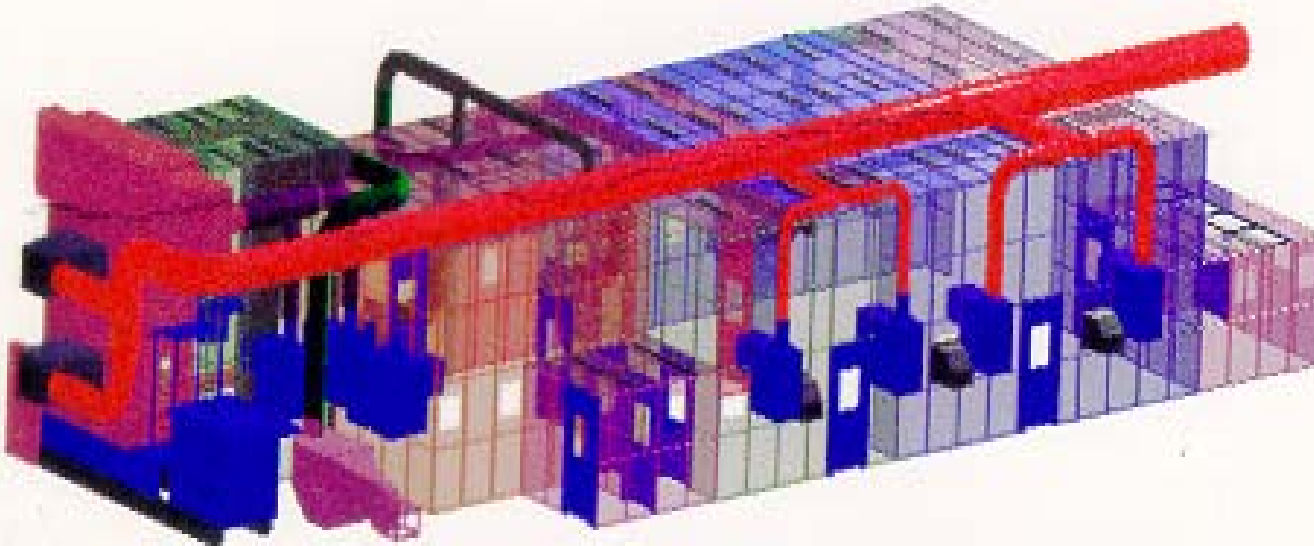


# Secondary Confinement



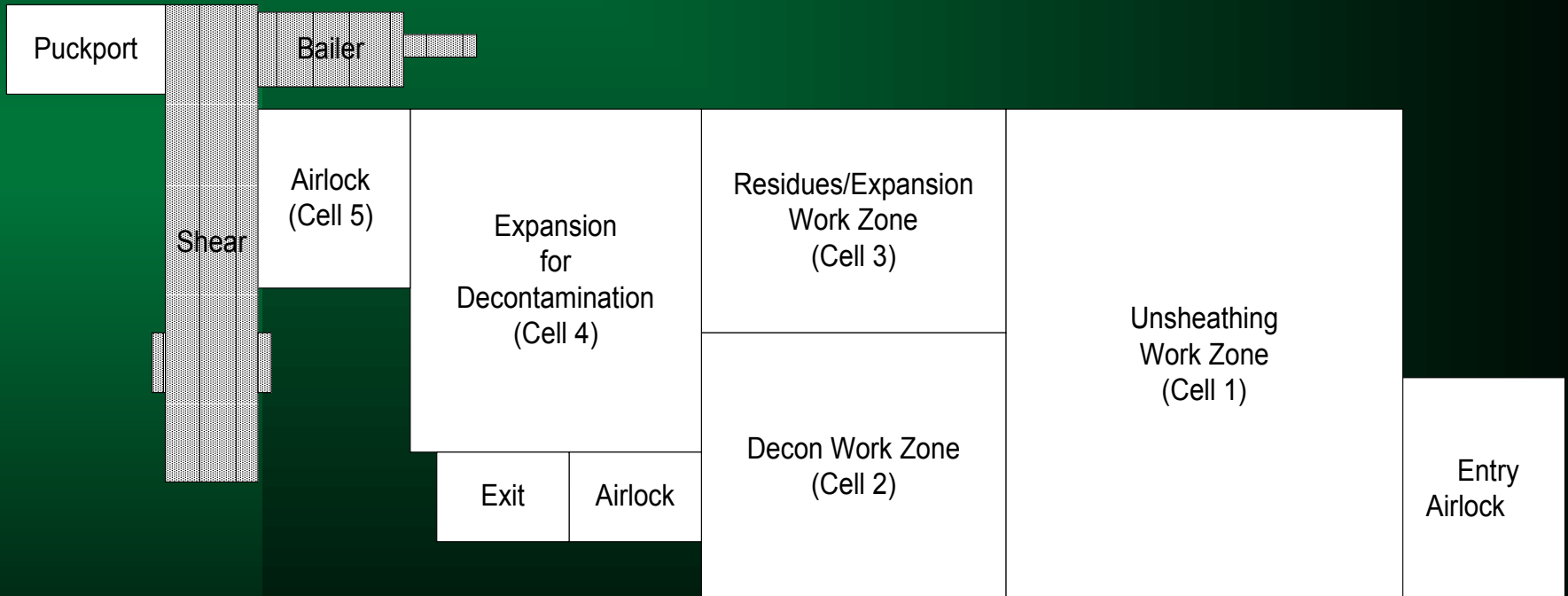


# Primary Confinement





# Work Area Layout





# Active HEPA Ventilation





# Consolidation



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# Current Activities FY02

- ▼ Process Performance Testing/Optimization
- ▼ Expanding Procedures For Flexibility
- ▼ Training Effectiveness
- ▼ System Reliability Centered Maintenance





# Procedure Development

- ▼ Start Up Documents
  - Start-up Plan
  - Corrective Action Plan
  - Inventory Control Plan
- ▼ Operating Procedures
  - Plant Start-up & Shut Down
  - Processing DOP
  - Waste Container Characterization



# Procedure Development

- ▼ Health and Safety Documentation
  - Health and Safety Plan
  - Industrial Hygiene Monitoring Plan
  - Radiological Monitoring Plan
- ▼ Other Documents
  - Worker Instruction
  - Design Documents
  - AB Documentation



# FY02 Project Progress

- ▼ Processed over 120 cubic meters of TRU
- ▼ Disposed of over 75 cubic meters as LLRW
- ▼ Characterized over 40 boxes
  - Radiological, X-ray, Headspace